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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/538,701

11/18/2005

Francois Malaubier

VA30429

3769

39600 7590 03/06/2008  
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EXAMINER

RINEHART, KENNETH

ART UNIT

PAPER NUMBER

3749

MAIL DATE

DELIVERY MODE

03/06/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/538,701	<b>Applicant(s)</b> MALAUBIER ET AL.	
	<b>Examiner</b> Kenneth B. Rinehart	<b>Art Unit</b> 3749	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 18 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/10/05</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Drawings***

Figure 1 and 2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 2, 6, 7, 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of DE3841874. Prior art discloses a grinding station (3); a combustion chamber (7) ; at least one intermediate silo (6) ; a separator (4) ; at least one cyclone (5) ;and which a dust extractor (10) that intercepts the finest particles. DE3841874 teaches which are then introduced into the combustion chamber via at least one dedicated pipe and burned by at least one dedicated burner, the dedicated burners are near main burners, the intercepted particles have a diameter less than 75 microns, the solid fuel is non-bituminous coal (col. 3, lines 36-51, col. 6, lines 66-col. 7, line 6, col. 7, line 38-58, figs. 1, 4) for the purpose improving the firing process.

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It would have been obvious to one of ordinary skill in the art to modify Prior art by including which are then introduced into the combustion chamber via at least one dedicated pipe and burned by at least one dedicated burner, the dedicated burners are near main burners, the intercepted particles have a diameter less than 75 microns, the solid fuel is non-bituminous coal as taught by DE3841874 for the purpose of improving the firing process. The applicant is merely combining prior art elements according to known methods to yield predictable results. Prior art in view of DE3841874 discloses applicant's invention substantially as claimed with the exception of the intercepted particles have a true mass per unit volume from 0.1 kg/dm<sup>3</sup> to 0.4 kg/dm<sup>3</sup> lower than that of the particles intercepted by the cyclone. At the time the invention was made it would have been an obvious matter of design choice to a person of ordinary skill in the art to have the intercepted particles have a true mass per unit volume from 0.1 kg/dm<sup>3</sup> to 0.4 kg/dm<sup>3</sup> lower than that of the particles intercepted by the cyclone because applicant has not disclosed that mass per unit volume provides an advantage, is used for a particular purpose or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with either the mass per unit volume of Prior art or the claimed mass per unit volume because both perform the same function equally well.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of DE3841874 as applied to claim 2 above, and further in view of DE 3731271. DE 3731271 teaches each series of said main burners has at least two of said dedicated burners (col. 2, lines 66-col. 3, lines 8, col. 3, lines 17-25, fig. 1) for safer ignition. It would have been obvious to one of ordinary skill in the art to modify Prior art by including each series of said main burners has at least two of said dedicated burners as taught by DE 3731271 for the purpose of safer ignition.

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The applicant is merely combining prior art elements according to known methods to yield predictable results.

Claims 4, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of EP0747629. Prior art discloses a grinding station (3); a combustion chamber (7) ; at least one intermediate silo (6) ; a separator (4) ; at least one cyclone (5) ;and which a dust extractor (10) that intercepts the finest particles, some of the intercepted particles. EP0747629 teaches introduced into the combustion chamber via dedicated pipes and injectors downstream of main burners (col. 4, lines 41-55, col. 5, lines 50-58, col. 6, lines 56-col. 7, line 37) for the purpose of burning powdered fuel to reduce NOX. It would have been obvious to one of ordinary skill in the art to modify Prior art by including introduced into the combustion chamber via dedicated pipes and injectors downstream of main burners as taught by EP0747629 for the purpose of burning powdered fuel to reduce NOX. The applicant is merely combining prior art elements according to known methods to yield predictable results.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of EP0747629 as applied to claim 4 above, and further in view of Vatsky (4,270,895). Vatsky teaches finest particles are injected under substoichiometric conditions (col. 7, lines 55-60) for the purpose of reducing NOX. It would have been obvious to one of ordinary skill in the art to modify Prior art by including finest particles are injected under substoichiometric conditions as taught by Vatsky for the purpose of reducing NOX to meet environmental regulations. The applicant is merely combining prior art according to known methods to yield predictable results. as to burn fuel under substoichiometric conditions is a well known means to reduce pollutants.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of DE3841874 as applied to claim 1 above, and further in view of FR 2,534,359. FR 2,534,359 teaches the combustion chamber is a double vault combustion chamber (page 1, lines 24-30) for the purpose of containing the combustion reaction. It would have been obvious to one of ordinary skill in the art to modify Prior art by including the combustion chamber is a double vault combustion chamber as taught by FR 2,534,359 for the purpose of containing the combustion reaction. The applicant is merely substituting one known element for another to obtain predictable results.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of DE3841874 as applied to claim 1 above, and further in view of Tobias (6369680). Tobias teaches the combustion chamber is a front heating combustion chamber (col. 5, lines 46-col. 6, line 7) for the purpose of containing the combustion reaction. It would have been obvious to one of ordinary skill in the art to modify Prior art by including front heating combustion chamber as taught by Tobias for the purpose of containing the combustion reaction. The applicant is merely substituting one known element for another to obtain predictable results.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prior art in view of DE3841874 as applied to claim 1 above, and further in view of EP 976977. EP976977 teaches a tangential heating combustion chamber (ABSTRACT) for the purpose of containing the combustion reaction. It would have been obvious to one of ordinary skill in the art to modify Prior art by including a tangential heating combustion chamber as taught by EP 976977 for the purpose of containing the combustion reaction. The applicant is merely substituting one known element for another to obtain predictable results.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth B. Rinehart whose telephone number is 571-272-4881. The examiner can normally be reached on 7:10 -4:10.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven McAllister can be reached on 571-272-6785. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kbr

/Kenneth B Rinehart/  
Primary Examiner, Art Unit 3749